Interview

An interview with Michael Kräftner, CEO, celum

Michael J. Kräftner

(31) is the owner and managing director of celum GmbH. At the age of 19, while studying Media Technology and Design at the Upper Austria University of Applied Science, he founded his first company. Two years later, he founded celum. After completing his studies, he gained experience working as a manager within the IT department of an international steel company. In 2001, Kräftner was presented by the region of Upper Austria with an award for young entrepreneurs. In addition to his successful business career as an entrepreneur, he is a regular lecturer on the topic of digital asset management at both the Danube University Krems and the Upper Austria University of Applied Science.

The following is an unedited transcription of an interview conducted by Michael Moon (MM), Editor of the *Journal of Digital Asset Management*.

ABSTRACT celum is a leading software company for enterprise digital asset management solutions. celum products automate and accelerate communication, marketing and sales processes, reducing costs and helping customers achieve greater flexibility in day-to-day operations. The company has been building a strong presence in Europe and now increasingly in the Americas. celum focuses on the enterprise market and brand owners as well as the government market. The interview with Michael J. Kräftner provides insights into celum's market strategy as well as best practices for successful enterprise DAM implementation.

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MM: We are here with Michael Kräftner of celum. Michael if you would please give us a little bit of your current job function and a short history of your career.

MK: Okay, well my name is Michael Kräftner. I am a native Austrian, and unlike others, I am not trying to be governor in one of the biggest states of the US, but I tried to do something that makes sense here in Austria. I found the predecessor of company to celum roughly 11 years ago while I was in senior college and my current job at celum is on one hand CEO and Chief Products Officer, so my actual responsibility is really to shape, define and visionize the future of our Digital Assets Management, Media Assets Management and Web Print Product Framework.

MM: Great.

MK: And before founding celum, obviously at the very young age of 20, I was in junior management of the IC group, one of Austria's largest industrial conglomerates responsible for designing, shaping and building the first

generation of their Worldwide Enterprise Intranet solution.

MM: Please provide a brief background of celum and let us start off with its name; does this name mean anything?

MK: Yes! It is actually a derivation of the Latin word for sky or heavens above. And actually, in San Francisco you will find a building that has celum on it near China Town. First of all, we stopped at the time when we were coming up with the name that what we are doing to say something, and it is now seems to be more than true globe spanning in the sky so to say in circles, the planet, and the sky itself were a blue sky with a cloud on it. It works out quite nicely; the name, for example, in French speaking countries they always think that we are a native company because it sounds so French. Yes, a good name; it was a good choice.

MM: Excellent! And how would you describe the nature of the business in celum?

MK: Well, celum is a technology-driven company. We see ourselves so to say in the

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best of all traditions of German engineering even though we are Austrian, but, so to say, like Persia also some now worldwide brands with a German touch actually originated in Austria, so the same attitude is here, and our objective from the very beginning was not to build so to say a project for a single customer and then somehow create the product out of it. The film matching platform has been designed specifically from the very first line of code to be a standard product so to say and this is also, however, seen started of now six and a half years ago in 2003 when we so to say specifically started to develop celum. Imagine in its first generation and yet the company background also besides being so to say very much engineering-driven in means of the global strategies is also very much user centric. So our idea from the very beginning was the target audience and not the specialist user meaning not to be the photographer where the creative artist was the main user that we were targeting. We were targeting those users that are using such a system like 15 min a day and probably only every 6 days a week or every 10 days.

MM: So what are some of the major customer or market segments, and perhaps some identifiable customers in the segments that you served today?

MK: With this strategy, our main customer segment is industrial big brand owners. These are the main customers; probably a few of them that are well-known are the whole Volkswagen Group especially with the brands Audi and Porsche besides Volkswagen in sales. Then it's some Sanofi-Aventis, world's largest pharmaceutical conglomerate, for example its governmentally intuitions like the US Army where the US Department of Energy. It is also big brand owners like Procter and Gamble, and Toshiba, but also so to say mid-sized businesses like specialized bicycles that are also very much brands driven brand orient.

MM: And have you noticed much difference in terms of how say B-to-B companies that sell other businesses. How they use DAM in ways that are different ways them to say B-to-C companies who create basically more consumer experiences?

MK: Well, of course at the beginning it is always a very different approach to those different companies who are following, normally

so to say the B-to-B customers we have that are bigger when they start looking into them, but then they are B-to-C counterparts. So the more B-to-C you are the smaller you can be to really find out how helpful this can be for you. The more B-to-B oriented you are the bigger you will probably grow before you are more or less drowning in your own content volumes that you need only to run the systems in size of one of the biggest companies such as a company called Veolia that we have. There are in infrastructure services and have more than 330 000 employees, but for them, for example, it is typical because they are so huge. Their Intranet alone has tens of thousands of users so they are their ecosphere. Classic brand owners are of course targeting more their partner landscape and then through the partner landscape probably a retailer and so on begins customer.

MM: Right, the dimension that you had for some non-profit governmental sectors like the US Army and Department of Energy. First of all it is a kind of unusual for say NEU-based firm how those kinds of companies is client organizations clients. What are some of things that the US Army or Department of Energy is doing or at least that, which you can talk about?

MK: Well, especially the US Army is using the system and this is I think something I can disclose. The US Army, for example, runs the America's Army Game Project and, for example, in this context they are heavily using celum Technology to manage artwork and graphics for example and of course everything they do so to say outside of phone. So they are using it from a classic marketing approach but also from a publisher using it internally. SEGA, for example, is another game publisher that is using it, of course mainly for in game content that they need to manage and distribute in their organization. With the US Army, they are actually a very interesting customer and not the classic army style because, for example, the German Army is also a customer. They are using it in ways that you would expect from a military organization.

MM: You know it is another thing Michael that I also wanted to have you talk about because again it is somewhat unusual for DAM vendors to have these kind of relationships and

more specifically a kind of a solution provider who basically offers celum Technology as a service subscription to their clients; could you speak to that a little more?

MK: Well, it is a very successful relationship we are doing it what may be considered being classic white label business. They are running a whole pool of smaller App set that are totally software as a service from the main approach and in the course of this, all is a celum Diary what they call Major Tom and selling it off under Major Tom bulk net. This is quite interesting because celum is the missing link between those other small applications that there also offering as software service, which is a very fruitful relationship for both parties and of course for us. I would say right now about 50 per cent of our rather vast roughly 80 customers in the US are so to say Equant-based software as a service customers.

MM: Michael, this also sets off another interesting topic that was going to develop later in the interview, but this is good as time is any and it is really the notion that when down first emerged it was emerged really out of creative work groups and it tends to be a little client server application and we had some of the initial pioneers, and as we moved out of the 90s and into the double odds over the first part of this century, we will see enterprise class software applications begin to emerge and these enterprise software applications really were out of the cut from same mold of say, for example ERP, NHR and CRM applications. Big monolithic applications that took a fair amount of professional services and custom development to fit to a particular set of user requirements and business requirements, but then as web services began to develop, they really began to emerge not just software as service, but almost if you will a second- or third-generation assess, which really called attention to our calls and really identified what we now call platform as a service.

So, you have got a platform in the cloud with all the things that the platforms have which is to say much of different services that we can quickly configure that echo system of third- and fourth-party developers who are extending the platform without a specific applications or services. And that really calls attention to them this large echo system of what

you could call them App developers but if you want to continue the parallel here they really are functions as a service and these functions as service you can almost think of Mike Apps and an App store that are quickly integrated back to the base platform all kind of out of the clouds so to speak and so you just described with equivalent was really the notion of DAM now lay as a service, but DAM as a platform and a blue for integrating the whole bunch of other services that are of more immediate and specific value to the costumers that equivalent servicing. Could you expand on that idea and specifically provide a little more concrete detail in terms of how it works?

MK: Well, okay, this is a very interesting topic that I think we have proven with many of our relationships we have with that might be considered similar to that we have with quant, but in a totally different way. How far from left-to-right can this go? We have, for example, other relationships that we call more or less in partnerships with, for example companies coming out of the CRM more payment and in e-commerce field where they are using a technology. And, I really like the term glue that you use because this is stable; in many aspects celum Technology is delivering like we are the glue between a Share Point Service and a PIMS or Product Information Management System and we roll in between because the content that is necessary to be displayed were to be used and further in one of those systems so to say more or less need to run seamless between those two. And, when you talk about extensions and what one in the ice on age would call Apps, that is quite interesting because you can slip Apps into so to say one of the three levels, for example the portal layer, which would be Share Point, a few such thing that integrates a semantic search techniques that drags in the semantic content from the web what we are ever and merged it so to say with digital assets. Delivering on the other side an App that, for example, pushes content from the digital asset management system very clean into iTunes broadcast channel that would be an Apps so to say for the band and then you have all kinds of other service-driven layers for like all the other Apps that we are connecting with, so I see two diminishes of this platform/function as a service. The one is so to say

heading as a dumb our own layer like I said with allowing developers to build something that integrates content delivered from the DAM into iTunes video broadcast and of course getting back content from there. But furthering the content you get from there directly into a CRM that would be an App so to say on top of the DAM and then you have to second dimension when the DAM is the glue. I really laugh there the term glue that you came up with is so to say that the DAM itself is the glue between other more I would not use the term monolithic *per se*, but like the share point is nothing, that you can just turn on it once *per se*, so the DAM circumvent it goes around all those other bigger or even smaller Apps in this case is really applications and they runs their own Apps and the DAM has its own Apps so it is a two dimensional grit of so to say functions delivered as a service.

MM: Right; excellent.

MK: This is what we see its Intel probability and connectivity and of course at the end rule, the DAM. We will carry the brunt of the load so to say because the digital assets are still more complex content that we are taking here about. They are the big content. This is the hay IV storing are a content in three layers in a disbursed local meaning data center layer were more or less local meaning on the client PC in a pear to pear kind of style.

MM: Right excellent. So you are describing a couple of OVM applications or integrations. For those who are not familiar with PIMS or Product Information Managers, could you describe a little more about some of the core functionality and may be a partner to who provides PIMS.

MK: Okay, the partner we have very close lines with is this German company called Hybris, like the Greek term Hybris and they have big costumers like H&M, Espresso, etc.

What they have with Mercedes Benz and so for most of their customers is that we deliver our technology in the back and what PIM actually does it takes content more or less from the ERP from SAP and so and it builds a layer that is more sales-driven on top of it so adding, pricing and more localized necessary information on top of this content. This then includes, of course, digital assets because probably the TV add as Volkswagen we are using in the US is

totally different from that we use in Mexico or in Canada and you want to relate this with so to say the marked outbound information that you are aggregating in the Product Information Management System and sit so to say on top of your ERP. Therefore, PIMs is an intermediate layer and from PIMs it's very close step normality to commerce in means of e-commerce, but also point of feels-driven commerce and the mixture of that with all its outbound channel set are new with like to say a mobile commerce and so on and so on. This is very interesting to you, but of course mainly in for example for classic production companies were for the retail segment like H&M.

MM: So PIMs tend to be applications that companies with a large inventory of skills or shop keeping units have and it takes raw data out of a production data system or system records such as an ERP we have got real inventory and therefore the PIMs basically adds additional information allows you to management information that's more marketing and costumers facing such as pricing, futures and benefit, product descriptions and other sorts of things that you might see in an order form or it may be even a catalog page. Now, it is the PIM, a place where companies typically put their product and marketing claims, and what I mean by product or marketing claims, it's all of the language that you would see on the side of a package or a carton or in a data sheet is at the place where you find customers putting marketing and product claim, so that they put that some place else?

MK: Well, this is in most cases in a very mature system context, for example, these kinds of content would also be kept originally for example in the DAM as generic text base content that this is merged with so to say all the other contents that you would probably use on a package and you have so to say the PIM on the outside that so to say remotely puts the stuff together in regard of which market you are using for example a certain package. This is where our Web2Print where dynamic collateral 'creation' component also comes into the game where the PIM tells the DAM so to say who deliver either content in a web shop or who creates so to say more sophisticated compound contents like a package complete with so to say the market depending formulation, contents, and so on that might

be of course very much different from market-to-market. So, they are hand-in-hand PIM and DAM are working very much closely together as one and there again we have the function as a service that this actually cross system.

MM: Right. Now you just mentioned Web2Print for those that are not necessarily familiar with that term, what does that mean and how has that perhaps evolved for the notion of iPads and mobile devices and digital chaos and so on?

MK: Of course, it changed and this is also very interesting.

MM: So, first of all define Web2Print and then perhaps how it has began to change?

MK: Okay, what we see the Web2Print and Web2Print have from our perspective to calling it outbound media is as of now something that is really physically printed. We see two layers, one is the catalogue aspect creating catalogue printing them, this is very much what I would say very much subjective change with upcoming even more digitized channel like the iPad and so on where so to say it is getting more and more redundant to print something like a catalogue and the other would be the let us call it more dynamic creation of stationary and marketing collateral stuff that you would need to fill in your point of sales wherein the so to say personal dynamic B to C communication where that you need internally so to say just a second part would be everything from creating a business card dynamically and then it runs out to the printer and then you get it so to say delivered 500 pieces of new business cards or it goes up to like big billboards that is probably so to say are more or less automatically/dynamically generated via a web interface and they are so to say the term Web2Print comes from. So, I just answered both questions because this part the stationary point of sales part of course has a limited amount of change by having digital point of sales channel screen display that are digital and so on, but still you will have there, for in my perspective, longer time something that will be printed and even if we are displaying it so to say on the digital display, the process will be more or less the same and it just does not need to be printed but you need something online where you cancel it dynamically create a change content.

MM: So, if I could restate that Michael, Web2Print originally entailed, 'how do I take digital content that lives in a database and specifically distributed to the web?' How do I push it into appropriate forms so that people can print it in a more efficient way? You can think that Web2Print was a kind of the first layer and then as the technology matured as requirements began to evolve as communication channels begin to fragment, we still have that same base of content may be PIM/DAM and/or marketing claims, but now we want to take one message and push it out to both print and online channels. And, it could be as simple as a business card or sales letter, direct mail piece of catalogue, a online web page, and may be even a micro site or may be even two a mobile App, and that level of complexity requires much more sophisticated and agile work flow because those are all different terminus or end content end points. And now, then the third level where we are seeing, is saying okay, we still have all of this content flowing one way but now customers are knowing more about our customers as a function of our CRM and perhaps customer engagement profiles, so now we want to start customizing if not personalizing if these content flows, so that we are still now it is multichannel communications but now it is also then this third level is now going through some sort of further customization refinement that is all being driven by say customer personas and other things that users might want to specify as unique to their requirements or needs our preferences. Is that a fair characterization of how web print has continues to evolve.

MK: It will definitely continue, probably that the permit we will be using in like 2 years would not be like Web2Print, but it would be web2Display just defining that the input channel is web-based but the output channel is whatsoever kind of display. It can be a digital billboard, it can be a printed billboard, and it can be something that you will see on New York Times Square on a skyscraper wall it can be virtually anything and therefore we will see some kind of convergent between so to say different worlds of systems. I think our strategy in being very much open and being so to say the glue, I really love being the glue between all those systems that might be involved in creating or achieving this kind of lets say

maturity you need to glue in between and therefore with our focus that this right now and it will evolve in the near future into more outbound so to say out in inbound or segments. Right now we have Digital Asset Management, Video Asset Management and Web2Print because these are levels that we can explain the customers what it is so to say behind what is poking from a visionary standpoint, I am totally, totally, totally convinced that in the end so to say the DAM will be part of a hub structure that has so to say multiple ins and multiple outs.

MM: Well that is something I would like you also speak to Michael, so far we have really been talking about institutional inputs, VC, VERP and PIMs and perhaps a little bit of CRM, and we have talking about for the most part outputs displays print video Apps and so on. One of the thing that is happening especially among some of the more innovative consumer brands and B to B customers is bringing in more and more user generated content that is either specifically created by users to share or content that users created that was posted in some sort of a public form like a blog or forum or discussion group of Facebook fan page and so on. So, that the inputs to the communication process are now incorporating more and more of what we might call a voice of the customer that could you speak to how DAM and the services of DAM will expand to include more and more of these non-institutional sources of input and more specifically user generated content?

MK: Definitely, I think this is a huge thing and it is an additional pain to the pain point that we are the DAM Vendor communicating, especially the more innovative of us are targeting anyway because we are now talking even to so to say very much regarded as being cool and brand new, and ahead of the pack brand owners and so on. They just start to get control over that self-produced content and at the same time they see now very, very fast the huge wave coming onto them of user generated content and I think this is to say something where we the vendors, especially celum, is very much ahead, but so to say for many customers they are just seeing the wave and not seeing what so to say comes behind the wave. So, therefore we need to be very careful, but to answer your question, what

we are going to be again in this role of hub of logistic center is that we will be able to be that who will be allowing our customers to be able to facilitate this huge energy that this contained in this wave that is coming onto them. So, if this energy can be very much destructive, if you are not capable of using it, but it can be also a huge positive energy and we seeded now with customers using our technology to distribute content via pop caste for example, and of course the pop caste also are provoking comments, feedback, but also user generate its quantity remains of that users would like to take part out of those contents and merge them together and promote partially to their friends. So it used to generate this, but also user generated content that we are talking here about. Both are very interesting to understand for our clients what is happening out there and how to facilitate that. I am a little bit concerned that all the other back ended systems and marketing analytics and so on are in no way now in a state where they can really cope with so to say this huge wave of inbound information. So the DAM part controlling this making it able to be reused to be forwarded to be further to allow the end users so to say to take content and merge it together and then to move it onto pass it onto friends to share the content. This is to say something where the DAM will play a key role in the future, but I think from the prospective of a customer of the brand owner it will be also a challenge to have systems in place to get so to say the non-content based information, who did what for how long and so on really back into facilitate this kind of information. So it will be also again something where the DAM needs to be very closely to be bound for marketing analytics, marketing reporting tools and needs to be open to be able to deal with these upcoming needs and we see many competitors be very much close and being from a technical point of few will not be able to cope with these scenarios.

MM: What are the things Michael that we have seen and we characterize them as weak signals, which is to say faint indications of something emerging, but not quite necessarily clear or well understood and perhaps our role is to amplify these weak signals and you know catalytic insights and kind of opportunities for growth and innovation. More specifically, we

have seen as a set of weak signals, this notion of social media monitoring has really changing the equation for good customer communications for you to be C brands and social media monitoring often times starts of with a specialized service that crawls through hundreds of millions of blogs and forums, and Facebook pages and so on and summarizes them, actually semantically tags them in terms of topics and then analyzes them in terms of sentiments, positive, negative, and neutral, as well as the intensity keys words and phrases that do indicate spikes of enthusiasm or anger and in the first set of analytic date of it that brand consumers are now beginning to pour through as what I call mood of the market are buyers engaged in the conversation, what are they saying, what are the keywords and phrases to indicate engagement, what are the patterns of engagement? And then the second one is the voice of the customer. What are the customers saying about our products and policies and the ways of being related and is positive or negative is a generating subsequent re-tweets is the conversation viral, is it propagating, is it moving traffic or do we see any kind of indications of it either in terms of subsequent web site traffic, micro site activity, or retail so on and then finally we are seen another group, and this is the most advanced set of analytics that we have seen is what we call patterns of engagement, where now I have identified you as a customer and how many times have you fired up and used your Apps, your iPhone or iPod Apps? How many times have you posted things on a Sam page? How many e-mails have you responded to? How many personalize landing pages have you visited? How many times you clicked through or download or matched it up? So is taking all that desperate kind of activity data that signifies participation, engagement if you will even advocacy and summarizing that statistically and then that all comes back to now see our institutional corporate story telling, are traditional brand communication is fundamentally missing the mark in terms of how customers, what customers are saying and doing and how they are feeling. So all of the social media analytics mood of the market, voice the customer, patterns of engagement is fundamentally changing as we have seen a couple of early adopters what we call pay setters. Fundamentally

changing how companies are beginning to think about accustoming, communications, brand engagement, and so on and that calls back to them the roll of a DAM organizing all of these roles bits in more meaningful collections if you well curated collections of future user generated contents. The fact makes sense and if so you can expand on it and if it does not make sense what does.

MK: While it does make a lot of sense and I think the role of the DAM will be again to act as a glue to relate or to deliver at least vital parts I think of this so to say in content the in streaming information that you mentioned. We have content, we have outbound devices displays that we have to consider like the iPad Apps, iPhone Apps, web site, places so to say where content of whatever kind is consumed and feedbacked on. Then we have so to say the back end delivery systems that are related to it like a pin, which then is combined with comer so you automatically adopt your shops offering, so to say by what kind of user generated videos are placed in response to one of your smart phone set probably like as a weak signal reception. You know the DAM obviously whenever it comes to mingle semantically of course this is so to say where we all build the ending, mingle semantically content in and out streaming with so to say places where it has consumed used, _____ whatever and so to say those systems that are creating this kind of content information without these contents were need to use to the content to control like the commerce offering and so on.

MM: Right.

MK: So that will be a very, very vital part of this should say service platforms, however, they will be moulded into each other, but the DAM will be the backbone of most of the information aka content-induced context we will be seeing flubbing back and forth in context of social context.

MM: If I understand you right, Michael, you are saying that user generated contents broadly and more specifically customer communications and interactions be they whether they are on my side or elsewhere become text objects in the DAM and therefore we can start managing and curating collections of customer communications and interactions as another class of digital assents. I understand that right.

MK: Yes, perfectly, and we have customers doing it. In celum we have a content 'text objects' and these type of text objects vary often are created by other systems and other systems does also include mean into his context and a social media sites of the user type sensor and contents.

MM: Right.

MK: And related of course that we will upload where a video clip that he builds together out of prefabs video clips so to say delivered by the celum customer.

MM: Right. So all of this, what that we have talked about basically says we are adding communications, interactions and engagement with customers and stake holders becomes more and more complex, multichannel contingent, and as this basis, so let us come back now to how do we manage the complexity and the time sensitivity of work flows and proposes and more specifically DAM as a platform, how do the services support these more complex work flows and processes?

MK: Well, this is a question that probably is very, very tough to answer because when we talk about the workflows in the whole context, we see very, very different kinds of workflows.

MM: Sure.

MK: We see the more, let us say production or into direct flows when we talk about content creation in the beckons so to say the prefab content being distributed, which is quite, I would say conventional, and this is pure and this is really workflow. A firm that we are internally more or less using a little bit for so to say the inc. in encompassing on top layer is steam flow, so it is not a workflow where you create something, you would piece it together, and the next person does something and then it is like until the next week something is displayed and then it is not displayed anymore, but in the stream flow contents, it is more about, okay, where we are ruled the content he be running, how does it change on its way and probably it makes a turn around and then it flows back and this makes as you pointed out a very complex set of multiple minor work flows that has to be dynamically stitched together and are influencing each other. So, this is one of our biggest challenges for the next 2 years in so to say research and development to really find a long-lasting

solution for these kinds of dynamic workflow needs that go just beyond of the classic understanding of how a workflow works.

MM: Right. A formulation that again another weak signal perhaps here and/or at next practice that we have seen in the industry that you described which you are talking about. It is almost that you worked backwards from a customer experience and our customer experience you could almost think that has a compound media consumption point, right, and as we work backwards from that, we say which there are several work streams that converge into that customer experience and a work stream tends to be more kind of structural and almost environmental, or it describes a whole bunch of things that come together, but a work stream essentially is analogous to like a business process, but is really a communications engagement process and then when you double click or several what constitutes a work stream, you find multiple work flows that are loosely coupled which is to say triggered by an event or triggered by a policy or some sort of a business role, and then when you double click on a particular workflow, you see a task that someone either did or there was some sort of an internal automation thing that happened and if you double click on the task you will find a set of activities that is someone performed in the context of a task which is component of workflow which is again a modular component of a larger work stream, which ultimately converges back to the customer experience. In terms of a naming anyway and a mental image, does that make sense in terms of that and if so what I heard you say is that you are saying that right now from an engineering prospective how to manage all those work stream so as to maximize the effectiveness of the customer experience. That is where a lot of the engineering and innovations taking place today? Did I get that right?

MK: Yes! Definitely, and especially the next approach is for us from an engineering standpoint and I am pretty sure, I do not get killed by our R&D department if I so to say disclose that much is a very generic object approach, the picked object is just one so to say top of the iceberg here, where you see so to say blinking through. In the future, our customer

like you pointed out that is a good example, a customer experience could be a generic object and it has its relations, it has its different life cycles where stages in its life cycle in its work stream and of course it is related to quite conventional compound elements like an image where a video clip, a video part, but of course these all is clipped together like a huge semantic map that changes very much over the time every so to say interaction would this content, with all the other content so to say lets this whole bunch of this whole tree so to say move along. It is really like if you are looking at all the single leaves of a tree and you move tree in time back and forth and all the little leaves, they are changing, you know, their position in the wind that they will be bend on so if you want to track all these kinds of information you are looking at the tremendous amount of information because they are all interacting with each other. The amount of shade so to say the tree gives had something to do with the position of each single leaf and this is what I think so to say the next, next generation of them will be mainly about.

MM: You know, I agree with that and again it is just in terms of a weak signal, we have seen the emergence of what we call a customer engagement object, which has these properties to it. First it has a customer database master, so there is some place in the stack or the value chain or the operation. Some place there is a customer database record and this record is a one version of the customer truth, so in the spirit of master data management, this is the best in that current information that we have about our customer. In addition to the customer database master, we have then the transaction and interaction history associated with that record. Now that data might reside in another data management system, but it is first linked to the customer database management. Part of this is what categories of information and what types of experiences does this customer consume or demonstrate an interest in, so are they interested in product information or community information user how to help that kind of stuff? There is also then some information in terms of who they are in terms of demographic and psychographic profile, a consumption cohort? There is also some other information as it relates to their mode of

engagement, are they an iPhone user or they are an Android Phone user or they are PC ____ are they coming in through a fractional T1 or they are on a really large fiberoptic connection, etc, etc and all of this information goes into a customer engagement object, so then ultimately DAM in this context evolves to manage customer engagement objects, which also includes all of the usual tree, branch and leaf, all of the medial leaves, all of the medial components that it takes to engage communicate and interact with this customer, we see this customer engagement options. At that point, I think it becomes really interesting, I find this fascinating, but at that point with the appropriate database analytic, you can say this customer engagement object last year produced 94 euros of gross income and 6 euros of gross profit. Next year given these programs that we will execute against this object, we believe that we can generate a 112 euros of gross income and 15 euros of gross profit against this object, so then basically what you have done is you have recreated the entire business ecosystem around one customer relationship and so then you can start doing predictive modeling of future revenues and profits, both on existing product life as well as on prospective future product offerings and specifically with product optimizations and marketing makes optimization in terms of what are the optimum things that I should promote to this particular customer.

MK: If you just take this vision back so to say into where so to say the more innovative business are now you will get the exactly the kind of relationship that we have so to say where we did we are enabling and allowing a PIM actually does. So, what you are describing is that you get this information back and you are mingling it and you understand it as a retailer for example. This is what the more innovative payments with the help of a DAM with some help are doing you are nearly there of course this is so to say what you describe the next evolutionary step, but it is definitely going the direction you are 100 per cent right.

MM: So let's come back to the real world or the short term you know day to day as we are doing this. We have already to close off this one topic that we had on workflow and process management. We have already said that work

flows are part of work streams and work streams are part of customer experiences and that we are headed towards this notion of a customer engagement object, but it underscores keep point from that you made that we are moving from content now to objects. The objects that are profiled in medi data that have extensive amount of business roles and policies around them and more specifically has led up either knowledge workers were need to have access and/or use that particular item so it is semantically tagged for retrieval and reuse by a broad number of users that is a fair summarization so far.

MK: Definitely.

MM: Okay, so then let's move into some of the things that you have seen with customers today as they begin to march towards that future. So, what are some of the typical issues that crop up as customers start to deploy this DAMs, platform, and really sort to build out this echo system?

MK: Yes, well of course one of the biggest concerns we are always existing requirement that we see is that customers say okay it should be this, this the DAM should be every other systems best friend in means of interoperability and content exchangeability. It should be capable of so to say keeping the pace with other very so to say top level applications like with the super tuned up shop DAM has to so to say be able to keep up the pace and at the same time it should be able to so to say integrate directly able to design for their marketing collateral production and this is so to say also a very challenging aspects in most of our project that of course the system needs, it should be in check of all and master of all and this is a challenge so to say it crops up with nearly every customer indeed start to be deploy the DAM, this is no. 1. No. 2 is also that we see with most of our customers are very strategic though limited trust project, so they say okay this is a very specific problem the need we have like a product management we just are immersed in this chaos of confident that we need help in cleaning the mess up, but then mostly and we need all of our energy we can get to keep the customers so to say on track as when they learn what the celum Technology is really capable of doing so to say hunter gross with eating and so to say that the project tends to explode in size

in both the company, departments and number of users, and so on and so on.

MM: So what you are saying here Michael is that initially people engage in the conversation with you around solving a very specific problem where they view DAM really as a system for managing something more efficiently and effectively. However, once they begin peeling back to covers of the layers of the onion as they begin to really understand DAM not just as a system. They begin to see it more as a strategy for accomplishing larger and more significant strategic objectives of the firm as opposed to these internal tactical how do I make my life easier.

MK: Yes, it really is not and it also has to do something probably so to say a means of change management so to say the easier and this is one of our strengths and enterprise grade software or solution platform flows into the organization the faster this process goes the more outside control we again need to employ, so for example you use the term system versus strategy or platform. We have all products now the finding three layers. The department for approach where the isolated approach will be solved with what we call system. The second layer on top of that, the second layer of the union so to say would be what we call platform, and the third is framework and we are not only referring to this as the technical terms of system platform and framework but also from our strategy prospective. First, a system is something, I put in the key, I turned the key around, and it just starts and it runs. This is a system. A platform is something that helps me to achieve something that might be a very diffuse need already, so it is not very much specified and then of course the framework is something that helps me to conclude a very broader normally what a broad overall strategy and what we are delivering is a technology that grows with the customer's need and allows them to go to pass in the next weeks, months, years that depends very much on what kind of customer we are talking about.

MM: So from a technology feature prospective, what do you consider the essential features of a system platform framework that allows or enable or supports that rapid migration or evolution of a system to a framework?

MK: Well, the system level it is mainly to keep the very, very simple, it should smell, look and

feel like something I am already used to. Even though it needs to be much more, but it should be a Ferrari that at the first glance just looks like the coziest mini van you can imagine, but under the hood it is still a Ferrari, but I am not scared about its possible speed. I will enjoy driving fast, but I am not scared because it does not look aggressive. So, how we are achieving this is by we are feeling a little bit like explorer. We are feeling a little bit like finder, but you are emerging yourself as a user in a feature set that goes far beyond of course what you are getting with a normal standard DAM or of course even a system. Then in the platform level, it is besides of course the same needs that you have with the system and for a user it should still be so to say tricking him into the deal, but from a text standpoint we are talking about here interoperability meaning it should be very easily to integrated with other systems with provoking big project and in the framework level its what we see mainly about hey I am a global organization, I want to just seamlessly to fit in my global IT infrastructure and so on. So it will be a system that like has different layers we are talking about the cloud nowadays, but cloud is only one part of the deal you have a clouded storage layer or clouded application layer, but also you have a semi local, hey our headquarters in Seattle, they really need the content onsite while so to say the subsidiary in Hong Kong does not even have the means to technology so to say running on their side they needed clouded, so this is where the framework really kicks in where we are talking about really global systems.

MM: Right, excellent. As we begin to move towards the conclusion of this interview Michael, would you speak to well I will call the ideal DAM administrator, supra user change agent, so often times DAM Systems as you have indicated they first of all start off with a departmental system then they kind of through this iterative discovery process evolves more into a platform where we are automating different work flows and activities and so on, and then ultimately towards a broader global strategy. Can you describe, if you would, which you described the person within the organization that generally gets it and a kind of drives or advocates that evolution internally and describe this particular person in terms of

skill sets, mind sets, aptitudes, and may be even what sort of job titles they typically have?

MK: If I may talk about it as a hypothetical person and probably also hypothetical rolled in later on. It is really the most innovative chief information officer mingled with the most innovative chief marketing officer together with very strong operatives including people skills around so to say trends and visions, and from a position in the company, it should be somebody that has the operational power to overcome, well you know, most big organizations there is actually divided in these little kingdoms, so actually you need to have a guide that is friendly emperor that rules above those kingdoms, but still does not have to do this so to say with the stick, but rather with a character.

MM: Right.

MK: And from the skill set so to say the personal skill set, I think it should be a person who has strong project management skill and has this bigger picture and I would say in the 50–60 DAM projects, I personally was conducting as a project manager from the vendor's side. I would be only in the 10 per cent of the cases. I was really dealing with people that had more or less exactly this skill sets this foundation within the company and the ability to perform or to execute. In all the other roles, well our costumers had to improvise to create an environment where this change process then at the end went smoothly, but I think the obligation for a software vendor, the system provider again here is to provide something that seamlessly sinks into the organization, so even if everybody steps back and does nothing over a certain amount of time ever more users would be so to say discovering the system so to say. Nobody was the change agent for the Facebook; it just started to be getting used.

MM: Well, Facebook is a fundamentally different beast than an organizational DAM right?

MK: Of course it is, but I think there is some learning that one could get out in means of change processes because if you look back a few years empty Facebook so to say what actually Facebook is doing right now if you would have to tried to impose this kind of let us call it openness, giving away information about you personally, nobody would ever have done this,

especially for example, within a company, but now with Facebook in private everyone is so to say exposing information that was never thinkable of a few years ago.

MM: Well I think it is fair to say that first of all Facebook started in college dorm rooms and it spoke to the social identity construction/anxieties of sophomore college students, which is how likable am I, how attractive I am to the opposite sex, and can I use this to in fact facilitate hooking up with somebody of the opposite sex, so those are all very, very powerful sociological drivers that would power any user to adopt a complex technology. But then, coupled with that is that we are only talking about digital natives to begin with whose brains which are already kind of wired for rapid adoption of technology, but your point is that user motivation I believe that the motivation to engage to work for the cognitive dissonance of not knowing what is going on to persevere in spite of confusion. If the motivation is essential to adoption of any technology and in the case of Facebook, there were the hybrid hothouse sociological drivers that I have already talked about of being a sophomore in college that powered through that supercharged if you will motivations of users and then a course achieved a critical mass in the rest of the history, but as it relates to institutional motivations and drivers. We do not have quite the same set of sociological factors to facilitate that adoption, so clearly this rapid adoption of DAM and related services within a large political set of systems or kingdoms to user term requires a different skill set and so they are having really strong change agent and advocate and champion and cheerleader becomes, I think to your point, really instrumental to the rapid adoption and evolution of DAM within a company. Would you agree with that?

MK: Definitely.

MM: So I guess then it becomes comment upon software vendors such as celum to make sure that as you are talking to costumers and new customers that they understand a basic template or framework or a set of best practice prescriptive or in fact rapidly adopting and evolving DAM within their organization. Does that make sense?

MK: Absolutely. So, it is also furthering best practices. We have also right now we have

roughly 410 very, very different organizations that are customers and many of them we have touched personally and have a direct relation with and this is with also our now or every new customer of course is very keen on forgetting so to say best practice because right now we have so to say good best practices out of virtually every thinkable of business and they are saying 'Oh'. It may be a competitive or may be a befriended company that 'Hey! How did they achieve so to say success?' and you are totally right within the company of course without a champion or a whole set of mini champions at least, it is very difficult to integrate, but I think it needs to be a mixture, so to say of product function, how they work? How they are approaching the user? Are they repelling the user? Are they including them? Are they using some kind of I would say social necessities? For example, one of the most successful single functions is that we are offering in means of spreading the word making the product more acceptable in the companies or in the Outlook integration because it is so seamless and people just stumble upon it and they start by using.

MM: You were saying Outlook integration?

MK: Yes! So, this is a very interesting tool that it is more or less always used. We had one customer calling if the flash grenades of integrating them because so to say you use it 'to blind the enemy' and it does that. It is a fancy and it is my personal favorite features so to say also as a user, but it also helps tremendously its use and it is so to say you will only use a fraction of the DAM features by using it, but it is probably essential to more or less stumble upon. It does not help to have so to say a strong project management team from vendor's side and from customer side and a project champion that you need from the customer side as you said before, but it will help a lot to get the bandwagon move faster.

MM: Right. So, if I understand you are right to summarize these three things. One is that there really is a need whether it is articulated or not. They remains strong and persistent need for really good innovation leaders who have the business contacts to the CMO, the infrastructure, IT infrastructure of mind set of a CIO with a really strong operations management in terms of how this particular

organization gets its work done and this particular innovation leader tends to be inclusive, tends to be more inspirational and facilitating, then bosses mandating you will do this now. The second thing is that you said is that there are specific kind of demo points or to use your term flash grenades of integration, which you characterized as simple Outlook integration that demonstrates the value in an everyday I am already familiar application, in this case Microsoft Outlook. The third thing that you said that really kind of speeds the option is a sharing of best practices in a way that people feel comfortable and that really then calls attention to what is a practice, what is a best practice, and how do we propagate these and how do we first of all document them or describe them and how do we describe them in such a way that they are sharable, and that really calls attention to the notion of education or some sort of a user community coming together to celebrate the innovations to acknowledge the innovation leaders and also them to learn from each other these best practices.

MK: Yes, absolutely. We could go on, now I would say for an hour in describing the more or less critical success factors for successful DAM projects, but I think this really is the core that so to say is applicable every single time.

MM: Excellent. So, as we move to the last part of our interview, Michael, are there any things that you would say would be a new skill, so if I was just ask a marketing or an operations professional getting involved in DAM today, what are the skills that I should think about acquiring as I move forward beyond what we have already talked about?

MK: Well, we did talk about this as well as you also named it so to say you should be at least very, very much familiar with the trends and really there is more than just what so to say the common knowledge in social media, social content and social information that will go back and forth between organizations and their peers, their clients, users, even their employees, applies and so on in the future. This might be a very soft term in some respects, but I think this will be a critical success factor in the next few years, so one should be very much aware where the trends are going in this direction and how this can help, so to say in the next few years to create the DAM solutions and I am talking about the whole project for our celum customers.

MM: Excellent. Perhaps this is a good time or good place to complete our interview today and perhaps we can come back and talk really about those other critical success factors in a subsequent interview.

MK: Yes, I would love to.

MM: Thank you very much Michael.